

## PATENT ABSTRACTS OF JAPAN

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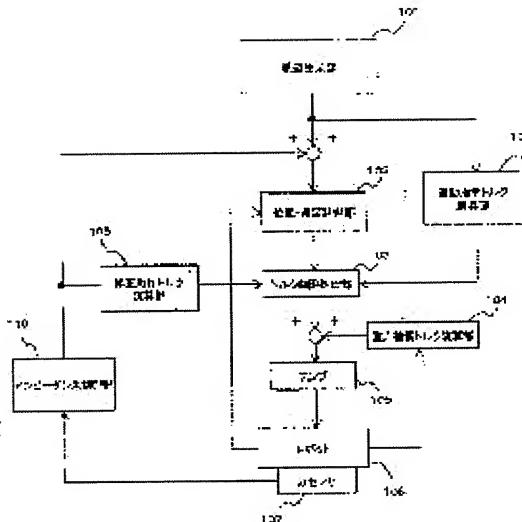
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### (54) CONTROLLER FOR ROBOT

#### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a controller stably realizing highly accurate force control even to a hard object and at the same time realizing having a flexible characteristic when contacted in any portion of an arm.

**SOLUTION:** This controller for a robot applies state feedback of position and speed of the robot, and it is provided with a control circuit for a motor driving revolute joints and a force control circuit based upon feedback from a force sensor. It is provided with means 101 and 102 calculating accelerating torque and torque for maintaining speed of the motor from an operation command and/or feedback of the motor, a means 108 adding the accelerating torque and the speed maintaining torque for calculating torque necessary for motion of the motor, a means 109 calculating torque necessary for a correcting operation from a correcting operation command outputted from a force control part 110, and a means 103 limiting generating torque of the robot from the torque necessary for the motion of the motor and the torque necessary for the correcting operation.



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